

Certification and Voluntary Safety Programs

General Information about Safety Programs

The FAA's safety mission requires it to take action to reduce or eliminate the possibility or recurrence of accidents in air transportation. The FAA and the air transportation industry have sought innovative means for addressing safety problems and identifying potential safety hazards.

The Federal Aviation Administration (FAA) encourages safety programs to increase the awareness of management and all employees of their responsibility to promote continual compliance with all regulatory requirements and best safety practices. These programs are not mandatory; however they are encouraged by the FAA and are intended to generate safety information that may not otherwise be obtainable. They are safety critical processes to ensure that an organization is managing hazard-related risks in an operating environment.

In this section you will find useful information about several voluntary safety programs, such as Safety Management Systems (SMS) [AC 120-92](#), Aviation Safety Action Program (ASAP) [AC 120-66](#) and Flight Operational Quality Assurance (FOQA) [AC 120-82](#). While this list is not all inclusive, it provides a good start to your responsibility and proactive approach in enhancing your organization's safety management. Before your organization begins the initial certification process, it is critical that these programs are implemented into your processes.

Once you have become familiar with these programs, contact the [Flight Standards Safety Management System \(SMS\) Program Office](#) or [Air Carrier Certification and Evaluation Program Office](#) to learn more and to receive a briefing prior to developing documents for the initial certification process.

Safety Management System (SMS)

The SMS promotes a defined structure and a "learning culture" within an aviation organization that continually seeks and analyzes information, then turns that information into action that eliminates or mitigates safety risks, before they become unwanted events.

SMS are organized around four basic building blocks or principles: policy, risk management, safety assurance, and safety promotion.

1. SMS recognize the potential for human error and other inherent unsafe conditions. They create robust design defenses to ensure that safety risks are managed and do not result in incidents or accidents. SMS programs establish open and free communication within an organization where employees have confidence that, while they will be held accountable for their actions, the organization will treat them fairly. An SMS sets the foundation for the practice of "organizational responsibility" for safety and encourages the identification of industry best practices and sharing of risk trends with other aviation service providers and the FAA.
2. SMS are highly encouraged as proactive and collaborative relationships that greatly enhance organizational management effectiveness. An SMS is essentially a quality management approach to controlling risk. It also provides the organizational framework to support a sound safety culture. For general aviation operators, an SMS can form the core of the company's safety efforts. For certificated operators such as airlines, air taxi operators, aviation training organizations, and repair stations, the SMS can also serve as an efficient means of interfacing with FAA certificate oversight offices. The SMS provides the company's management with a detailed roadmap for monitoring safety-related processes, and can increase productivity.

To meet the requirements of the aviation industry on a global level, SMS is an essential and critical part to your organizations risk management process.

Prior to applying for an air carrier certificate, to obtain more information or to receive a briefing on SMS, contact the [Flight Standards Safety Management System \(SMS\) Program Office](#) or the [Air Carrier Certification and Evaluation Program Office](#).

Aviation Safety Action Program (ASAP)

The purpose of Aviation Safety Action Programs (ASAP) is to prevent accidents and incidents by encouraging employees of certificate holders to voluntarily report safety issues and events. ASAPs provide for education of appropriate parties and the analysis and correction of safety concerns that are identified in the program. ASAPs are intended to create a nonthreatening environment that encourage the employee to voluntarily report safety issues even though they may involve violation of Title 49 of the United States Code (49 U.S.C.), Subtitle VII, or violation of Title 14 of the Code of Federal Regulations (14 CFR). ASAP is based on a safety partnership between the Federal Aviation Administration (FAA) and the certificate holder and may include any third party such as an employee labor organization. These programs are intended to generate safety information that may not otherwise be obtainable.

The objective of the ASAP is to encourage air carrier and repair station employees to voluntarily report safety information that may be critical to identifying potential precursors to accidents. The Federal Aviation Administration (FAA) has determined that identifying these precursors is essential to further reducing the already low accident rate. Under an ASAP, safety issues are resolved through corrective action rather than through punishment or discipline. The ASAP provides for the collection, analysis, and retention of the safety data that is obtained. ASAP safety data, much of which would otherwise be unobtainable, is used to develop corrective actions for identified safety concerns, and to educate the appropriate parties to prevent a reoccurrence of the same type of safety event.

An ASAP provides a vehicle whereby employees of participating air carriers and repair station certificate holders can identify and report safety issues to management and to the FAA for resolution, without fear that the FAA will use reports accepted under the program to take legal enforcement action against them, or that companies will use such information to take disciplinary action. These programs are designed to encourage participation from various employee groups, such as flight crewmembers, mechanics, flight attendants, and dispatchers.

Refer to Advisory Circular [120-66](#) for more information about the importance of implementing an ASAP program within your operation before applying for an air carrier certificate.

Flight Operational Quality Assurance (FOQA)

FOQA is a voluntary safety program designed to improve aviation safety through the proactive use of flight-recorded data. Operators will use these data to identify and correct deficiencies in all areas of flight operations. Properly used, FOQA data can reduce or eliminate safety risks, as well as minimize deviations from regulations. Through access to de-identified aggregate FOQA data, the Federal Aviation Administration (FAA) can identify and analyze national trends and target resources to reduce operational risks in the National Airspace System (NAS), Air Traffic Control (ATC), flight operations, and airport operations. This chapter will define the elements of a FOQA program, the FOQA program approval process, and the role of the principal operations inspectors (POI) and air carrier inspectors in monitoring continuing FOQA operations.

The FAA and the air transportation industry have sought additional means for addressing safety problems and identifying potential safety hazards. Based on the experiences of foreign air carriers, the results of several FAA-sponsored studies, and input received from government/industry safety forums, the FAA concluded that wide implementation of FOQA programs could have significant potential to reduce air carrier accident rates

below current levels. The value of FOQA programs is the early identification of adverse safety trends, which, if uncorrected, could lead to accidents. A key element in FOQA is the application of corrective action and follow-up to ensure that unsafe conditions are effectively remediated.

FOQA is a program for the routine collection and analysis of digital flight data generated during aircraft operations. FOQA programs provide more information about, and greater insight into, the total flight operations environment. FOQA data is unique because it can provide objective information that is not available through other methods. A FOQA program can identify operational situations in which there is increased risk, allowing the operator to take early corrective action before that risk results in an incident or accident. FOQA must interface and be coordinated with the operator's other safety programs, such as the Aviation Safety Action Program (ASAP), Advanced Qualification Program (AQP), pilot reporting systems, and Voluntary Disclosure Reporting Program (VDRP). The FOQA program is another tool in the operator's overall operational risk assessment and prevention program. Being proactive in identifying and addressing risk will enhance safety.

Refer to Advisory Circular [120-82](#) for more information on implementing a FOQA program.

Preparation for Certification with a Safety Management System

A potential applicant should make every effort to gather as much information as possible about the process requirements of air carrier certification. Navigating this website and its associated links will provide a good start. Of particular interest to the potential applicant will be information on the implementation of a Safety Management System.

1. Safety Management System

A Safety Management System (SMS) has become an integral part of the certification and eventual operation of an air carrier. Before an applicant begins to develop processes and procedures that will be described in their manual system consideration should be given to incorporating SMS into their design. Information on the design and implementation of an SMS may be found at: <http://www.faa.gov/about/initiatives/sms/>. When the Pre-Application Statement of Intent is delivered to the local Flight Standards District Office the applicant should request the SMS briefing that is available.

2. Voluntary Safety Programs

Voluntary Safety Programs are an integral part of establishing a Safety Management Program for an air carrier. In addition, these programs are key elements of the risk management process that is vital to the establishment of an air carrier's safety culture. These programs include; FOQA (Flight Operational Quality Assurance), ASAP (Aviation Safety Action Program), and the Voluntary Disclosure Reporting Program. Information on these programs can be found at: [Voluntary Safety Program Branch - Program Descriptions](#).